

SN: 10/719,426

Docket No. S- 100,556

In Response to Office Action dated September 20, 2005

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REMARKS

Examiner has noted that the specification is missing the reference to the prior provisional application no. 60/483,146, filed on 06/26/2003. Applicants appreciate the Examiner pointing this omission out, and draw Examiners attention to the submitted Combined Declaration and Power of Attorney form submitted with the nonprovisional application that does reference the provisional application properly. Thus, Applicants have amended the specification to properly reference the provisional application, and since the reference was recognized by the Office in the first filing receipt, a petition under 37 CFR 1.78(a) and the surcharge under 37 CFR 1.17(t) are not required.

Claims 1 - 23 are currently pending in the application. Applicants have amended Claim 13 to correct a typo and ensure proper antecedent basis with the specification.

Examiner indicates that Claims 1-9 (10 sic) are allowable, and that Claims 10 (11 sic) - 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCorkle (US 2003/0161411) in view of Butters (Jenskin sic) (US 6,088,351). Applicants appreciate Examiners indication of allowable claims, however, Applicants respectfully traverse.

As to Independent Claims 10 and 18, Examiner states that McCorkle teaches a through-the-earth communication system, but fails to teach a data compressor that is taught in Butters, and, therefore, it would have been obvious to one of ordinary skill in the art to arrive at Applicants claimed invention.

First, Applicants contend that since the provisional application was filed on June 26, 2003, and that McCorkle's application was published on August 28, 2003, that McCorkle is not a proper reference for a 103(a) rejection, as McCorkle was not available to the public prior to the filing date of Applicants provisional, and, as such, is not a proper reference.

Second, McCorkle DOES NOT teach or suggest through-the-earth communications. McCorkle's Figure 1 illustrates the weakly penetrating character of the signals provided by his device. For example, one piece of wet paper toweling causes approximately 5 db of attenuation and a single concrete block causes 5-10 db of attenuation. Such signals would not penetrate 1 meter of earth, even less in wet earth.

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In fact, McCorkle teaches an innovation in through-the-air (emphasis added) communications, NOT through-the-earth, and is no more penetrating than a consumer FM radio. McCorkle paragraph [0010] is misleading in that the signal will NOT travel through-the-earth, but only down a tunnel following line of sight as with all high frequency signals.

Applicant's invention uses signals that are approximately one million times lower in frequency, and, following the skin effect law and using the same materials, has approximately one thousand times the penetration depth of the high frequency signals taught in McCorkle. Thus, McCorkle is not a proper reference for a 103(a) rejection, as it neither teaches or suggests a through-the-earth communications system.

Therefore, as Applicant's Independent Claims 10 and 18 are considered allowable, dependent Claims 11-17, and Claims 19-23 are considered allowable as well.

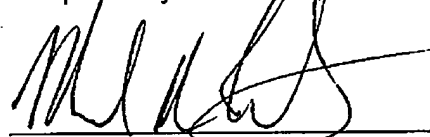
The Examiner is requested to allow Claims 1-23, and to pass this case to issue.

Applicant's attorney would be pleased to further discuss this matter by telephone with the Examiner if the Examiner concludes such a discussion would assist in moving this case to issue. No new matter has been added as a result of this response.

Date: October 28, 2005

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Respectfully submitted,



Signature of Representing Attorney

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